

I claim:

1. A multi-function semiconductor module comprising:

an image sensor including a plurality of light sensitive pixels for capturing an image in still and full-motion digital imaging;

5 an image processing circuit, responsive to the light sensitive pixels, having as an output a digital representation of the image captured;

an automatic identification circuit, responsive to a captured image, to identify information coded in the image;

a secure personal database;

10 means for inputting a biometric attribute;

means for providing a wireless communication including an antenna, a transmitter, a receiver, a wireless communication protocol and an Internet browser;

a central processing unit; and

memory containing a first biometric attribute and software for executing a predetermined

15 application.

2. The device of claim 1 wherein the means for inputting the biometric attribute further comprises means for comparing said inputted biometric attribute to the first biometric attribute and permitting access to the secure personal database in response to the input biometric attribute matching the first biometric attribute.

3. The device of claim 1 further comprising a lens disposed to project an image on said image sensor pixels, and an input/output means for transmitting the digital representation of a captured image to a remote device, wherein the control processing unit is coupled to the memory and the image processing circuit and stores the captured image in said memory.

4. The device of claim 1 further comprising a supplemental memory, a lens disposed to project an image on said image sensor pixels, and an input/output means for transmitting the digital representation of a captured image to a remote device, wherein the control processing unit is coupled to the memory, the supplemental memory, and the image processing circuit and stores the captured image in one of the memory and the supplemental memory.

5. The device of claim 3, further comprising:

an interface for a voice/data communications channel to a networked computer server, said communications channel comprising at least one of the group consisting of a cellular telephone network, a satellite telephone network, a wide-area network, a local-area network, and the Internet;

means for scanning, decoding, and transmitting via the interface information encoded in an automatic identification indicia, said indicia being selected from among the group consisting of bar codes, matrix codes, Optical Character Recognition (OCR), and Radio Frequency Identification Tags (RFID);

wherein the image processing circuit further comprises means for capturing single and sequential digital images, and wherein the central processing unit comprises means for transmitting said images via the interface over the communication channel to a remote location;

wherein the personal database comprises personal identification and credit card/debit card account information; and

a processor operable to transmit queries, receive textual and graphic responses, execute secure purchase of goods or services, and remotely store records related to electronic commerce transactions, and to execute the secure purchase of non-electronic commerce goods and services.

6. The device of claim 5 wherein the processor further comprises means for generating and transmitting a digital security code based on an input biometric attribute.

7. The device of claim 5 wherein the processor further comprises means for activating a large scale processing application on a remote server.

8. The device of claim 5 wherein the processor further comprises means for securely executing personal financial transactions.

9. A communications node comprising means for receiving a transmission containing a biometric attribute data associated with a remote user, and means for identifying said user in response to said required biometric attribute.

10. The communications node of claim 9 further comprising a database comprising a plurality of securely stored biometric attributes data corresponding to a second plurality of users.

11. The communications node of claim 9 further comprising means for verifying the identity and authenticity of the user associated with a received biometric attribute, wherein the transmission is associated with said user conducting a financial transaction.

12. The communications node of claim 9 wherein the transmission includes data corresponding to a digital image, further comprising means for storing the data corresponding to the digital image.

13. The communications node of claim 12, further comprising means for downloading to a plurality of remote display devices, said stored data corresponding to a digital image, said remote display devices being selected from among the group consisting of portable wireless communication devices, personal computers, and cable connected television sets.

14. A wireless communications system comprising:

a multi-function semiconductor device comprising:

an image sensor including a plurality of light sensitive pixels for capturing an image in still and full-motion digital imaging;

an image processing circuit, responsive to the light sensitive pixels, having as an output a digital representation of the image captured;

an automatic identification circuit, responsive to a captured image, to identify information coded in the image;

a secure personal database;

means for inputting a biometric attribute;

means for providing a wireless communication including an antenna, a transmitter, a receiver, a wireless communication protocol and an Internet browser;

a central processing unit;

memory containing a first biometric attribute and software for executing a predetermined application; and

a supplemental memory, a lens disposed to project an image on said image sensor pixels, and an input/output means for transmitting the digital representation of a captured image to a remote device, wherein the control processing unit is coupled to the memory, the supplemental memory, and the image processing circuit and stores the captured image in one of the memory and the supplemental memory; and

a communication node capable of receiving digital images transmitted via said module, said communications node being remote from said module.

15. A portable wireless communications device comprising a secure personal database, a sensor responsive to a biometric attribute, and a processor responsive to said biometric sensor and said database for verifying a sensed biometric attribute sent by said biometric attribute sensor, and granting access to said personal database on biometric verification.

16. The device of claim 15 further comprising means for transmitting to a remote location a copy of said biometric attribute in response to a failure to verify said biometric data.

17. A method of transacting commerce comprising:

providing a portable two-way communication device;

entering a product description including a price into said device;

accessing a remote database by a wireless communication channel;

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searching said remote database for data including prices corresponding to said product;

comparing said pricing in said remote database and said stored product description;

selecting a product to be purchased; and

initiating a wireless transmission of personal financial data via a secure data transmission

5 including a biometric attribute to make the purchase.

18. The method of claim 17 further comprising a completing the financial transaction and receiving a transaction record number, and storing the transaction number in the portable two-way communication device.

19. The method of claim 17 wherein entering a product description further comprises wirelessly sensing data corresponding to a product identification code and automatically identifying a product description therefrom.

20. The method of claim 19 wherein wirelessly sensing data further comprises optically scanning in an image.

21. The method of claim 17 wherein selecting a product to be purchased further comprises selecting one of the entered product description or a product description from said remote database.

22. A method of transacting commerce comprising: employing a portable two-way communication device storing personal financial data in said device; entering one of a biometric attribute and a personal identification code ("PIN") into said communication device, authenticating a user based on the entered one of the biometric attribute and PIN and, in response

to authenticating the user, transmitting personal financial data to complete the transaction without surrendering physical custody the device containing the personal financial data.

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